

REU 2025 - Ethics Class #1

Introduction to practical ethical decision making
Basic Ethics Theories

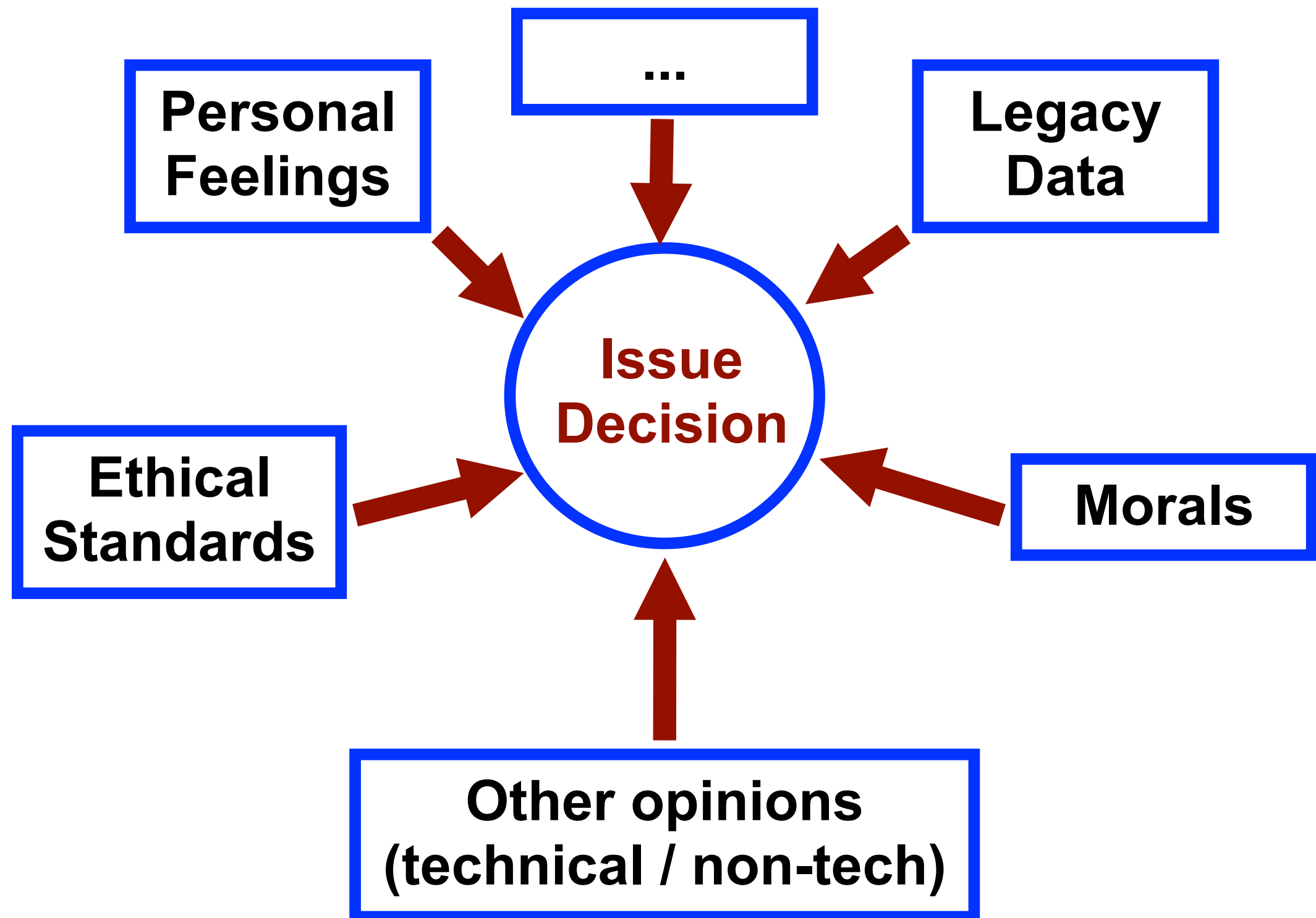
Research Ethics

- Does a researcher have a responsibility other than to produce the best product or process?
- Why are ethics important?
- What are the possible consequences of not using ethics?
 - Loss of life
 - Loss of property
 - Going out of business
 - Loss of reputation
 -

Being ethical – is it really this simple?

- Standards for ethical decision making
 - ABET – Accreditation Board for Engineering and Technology
 - NSPE – National Society of Professional Engineers
 - APA - Ethical Principles of Psychologists and Code of Conduct
 - IRB - Institutional Review Boards
- Often, these are only ***guidelines***
- Ethics are achieved by following a mixture of moral, legal, and personal values.

Ethical Decision Framework



Evolution due to the Information Age

- New car design & production times have decreased by over 50% in the last 15-20 years
- Software design times were up 5-6 years in the mid 90's.
 - Now less than 12 months
- How does this affect ethical decision making?



Morality and Ethics

- How does morality mix with ethics?
 - What other items/traits does this bring to answering ethical issues?
 - Emotions
 - Personal experiences
 - Religious
- What is the biggest problem with including morals in an ethics procedure?

Ethics and Law

- Should ethics have to be enforced legally?

Legal enforcement has many characteristics:

1. Laws have to be passed and then enforced
2. Breaking of a law has to be proven
3. Decisions are often made by non-technical citizens

Ethics and the Researcher

- Researchers are increasingly becoming required to foresee problems and design their solutions

Is this fair?

Question: How do you do it?

Answer: You approach this problem like any other in research

Gather data, analyze and make an intelligent choice

Consequentialist

- Commonly referred to as “the end justifies the means”.
 - Focuses on outcomes of decisions
- Look at a decision in terms of effect on individuals involved
- Correct decisions produce “the greatest good for the greatest number” - John Stuart Mill (1806-1873)

Other types of Consequentialist

- Altruism - Decisions should benefit all
- Egoism - Decisions should benefit oneself the most

Deontological Theory

- Focus on the decision and reasoning behind it
 - Some decisions are wrong regardless of outcome
- Often reduced to morality and should be governed by the *Categorical Imperative* (Immanuel Kant, 1724-1804):
 - Always treat humanity as an end and never as a means
 - Examples?

Deontological Theory

- The general idea is that all people are considered valuable and worthy of moral respect
- Or, said another way
- “Do unto others as you would have them do unto you”

Virtue Theory

- Aristotle (384-322 BC)
- Focus is on the individual over his/her entire life
 - Does not focus on individual decisions
- A virtuous person has wisdom through experience and knows how to apply this to practical decision making
- Rather than using formulas, codes, or standards, judgement is used to make decisions

Homework

- Look up information on Theranos and Elizabeth Holmes
- ‘The Inventor: Out for Blood in Silicon Valley’ Max
- ‘The Dropout’ Hulu
- ‘60 Minutes: Elizabeth Holmes and the Theranos Deception’ Youtube
- ‘Elizabeth Holmes: Valley of Hype’ Youtube